Attachment B

Bridge Construction Plan

SENERAL NOTES:

GENERAL; ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE CURRENT A.R.E.M.A. AMANUL FOR RALLAY ENGINEERING: CHAPTER 8 - CONCRETE STRUCTURES AND FOUNDATIONS. CHAPTER 15 - STEEL STRUCTURES.

THE BNSF STANDARD CONSTRUCTION SPECIFICATIONS SHALL SUPPLEMENT THE A.R.E.M.A MANUAL NA SHALL GOVERN.

BRIDGE ERECTION SUBJECT TO APPLICABLE DETAILS AS SHOWN ON THE PLANS AND OR REFERENCES AND AS DIRECTED BY THE ENGINEER.

SIRUCIUME EXCANATION AND BACKFILL: ALL SHOCHWE EXCANATION MAD BACKFILL SHALL BE IN ACCORDANCE WITH SECTION 04100 OF THE DRES TAMBARD CONSTRUCTION SPECIFICATIONS.

PERVIQUS BACKFILL WITERIAL BEHIND ABUTMENTS; FERVIOUS BACKFILL WATERIAL BEHIND ABUTMENTS SHALL BE IN ACCORDANCE WITH PARAGRAPHS 2.5 & 3.6 OF SECTION AGNOO OF THE BRISF STANDARD CONSTRUCTION SFECTFICATIONS.

CAST-IN-PLACE CONCRETE:
ALL CONCRETE: DISK AND PLACEMENT OF REINFORCHMENT SHALL
BE IN ACCORDANCE WITH SECTION MAND OF THE BASS STANDARD CONSTRUCTION SPECIFICATIONS.
BETALLED *ALSENDAR PLANS IN ACCORDANCE WITH PARAGRAPH 2.11 ARE REQUIRED AS RECESSARY.

THE PORTLAND CEMENT USED IN ALL CONCRETE SHALL BE TYPE II OR TYPE IIA. ALL CONCRETE SHALL BE AIR-ENTRAINED CONTAINING NOT LESS THAN 5% NOR MORE THAN 7% BY VOLUME.

CONCRETE SHALL BE CLASS 40 WITH AN ULTHATE COMPRESSIVE STRENGTH OF NOT LESS THAN 41,000 PTA 12 B MAY. AT 18 MAY. BAT 18 MAY. BE ARRENDED TO CONCREDENT SHALL BE DUE INCH. THE WINNIAM CONCRETE CLEAR OTHER ON BE INFORCEMENT SHALL BE TOO INCHES UNLESS MOTED OTHERWISE. EXPOSED CONCRETE EDDES SHALL BE CHAMFERED ³4, INCH.

PRECAST CONCRETE: PRECAST CONCRETE SHALL BE IN ACCORDANCE WITH SECTION 04500 OF THE BNSF STANDARD CONSTRUCTION SPECIFICATIONS.

RECESSES AT LIFT ANCHORS: FRECSSES AT LIFT ANCHORS IN BEARING BLOXIS AND PARAPET WALLS SUALL BE FILED TO THE FRECSSES AT OF SUBROUNDING CONCRETE WITH EPOXY GROUT COMSISTING OF COULA, PARTS BY YOLUNE OF CLASS B EPOXY AND DRY SILICA SAND, MIXED IN ACCORDANCE WITH MANNEACTURES'S DIRECTIONS.

REINCORCUENT: STEEL BARS FOR REINFORCEMENT SHALL BE DEFORMED. BILLET-STEEL BARS FORMING TO THE REQUIREMENTS OF THE CURRENT A.S.T.AL. DESIGNATION AGIS, GRADE 60 OR ATORG, GRADE 60.

FABRICATION OF REINFORCEMENT SHALL BE IN ACCORDANCE WITH CHAPTER 7 OF THE CURRENT CONCRETE REINFORCING STEEL INSTITUTE (C.R.S.I.) MANUAL OF STANDARD PRACTICE.

REINFORCING STEEL IS TO BE BLOCKED TO PROPER LOCATION AND SECURELY WIRED AGAINST DISPLACEMENT. TACK MELDING OF REINFORCING IS PROHIBITED.

WIRE BAR SUPPORTS FOR REINFORGEMENT THAT ARE IN CONTACT WITH FORMS SHALL BE CLASS PLASTIC PROTECTED IN ACCORDANCE WITH CHAPTER 3 OF THE CURRENT C.R.S.1. MANUAL OF STANDARD PRACTICE.

ANCHOR RODS: ANCHOR RODS SHALL CONFORM TO A.S.T.M. F1554, GRADE 55.

AND AND RODS SHALL BE SET IN FORMED HOLES USING NON-SHRINK GROUT CONFORMING TO A.S.T.M. CI107, THE MINIMIM 28-DAY COMPRESSIVE STRENGTH OF THE GROUT SHALL BE 6.000 PSI.

ELSTOWERIC BEARING PADS: ELSTOWERIC BEARING PADS SHALL BE IN ACCORDANCE WITH SECTION 04900 OF THE BNSF STANDARD CONSTRUCTION SPECIFICATIONS.

DECK PLATES, SHALL BE ADJUSTED AS REQUIRED TO ENSURE THAT PLATES FIT TIGHT AGAINST THE BALLAST TAFE, AND BALLAST CURBS.

PAINTING.

DOES THE PLATES, EXPOSED PORTINGS OF PLING BETWEEN BOTTOM OF CAP AND DESCRIPTIONS OF PLICE PLATES. EXPOSED PORTINGS OF PLING BETWEEN BOTTOM OF CAP AND DOES TO STRESS, HIGH CRANKEL BRACK BETWEEN ALL WINNIAM PRICENTED STRESS, HIGH CAS LIOS MASTICES, HIGH CAS LIOS MASTICES, HIGH CAS LIOS WASTER, HIGH CAS LIOS WASTER, PAINTING WITH ONE LICE PRICE PAINTING WAS AND THE STRESS, BUT AND THE CAP AND THE CAP AND THE STRESS OF SHILLS, ALL RREAS TO BE PAINTING SHALL BE CLEARED IN ACCORDANCE WITH MANUFACHERS IN STRESS CAPE. BY ACCORDANCE WITH MANUFACHERS INSTRUCTIONS. MAKWAN GRAING: JOJACKN TWAN TANK GRAING SHALL TERMINATING IN THE SAME LUCATION. GRAING SHALE BE AN MINIMUN OF THO SPAN CONTINUOUS OVER MALKAN BRACKETS.

PRIOR TO BEING BROUGHT ONTO BNSF PROPERTY PRODUCTS MUST BE REVIEWED AND APPROVED BY BNSF.



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STRUCTIGNI, STEEL:
ALL WATERLEY, FRBRICATION, AND ERECTION SHALL BE IN ACCORDANCE WITH CHAPTER 15 OF
THE CLORENT A.R.S. MAY, MANUAL FOR RAILWAY ENGINERING. AND SECTION OAGOO OF THE BINSY
STRUDNARD CONSTRUCTION SPECIFICATIONS.

UNLESS OTHERWISE SHOWN ON THE PLANS OR DESCRIBED IN THE CONTRACT SPECIFICATIONS, ALL STROUGHAL STEEL SHALL CONFORM TO THE REQUIREMENTS OF ASSIM ATOS GRADE 50W AND NOT BE PAINTED.

AL WELDING OPERATION PROCESSES, FOLIPMENT, MATERIAL, OUALIFICATIONS OF WELDERS, MAKAMANSHIP, TESTING, AND INSPECTION SHALL BE IN ACCORDANCE WITH THE CURRENT A.R.E.M.A. MANUAL.

FIELD WELDING OF ANY KIND IS PROHIBITED UNLESS SPECIFICALLY CALLED FOR IN THE PLANS OR APPROVED BY THE ENGINEER.

DNLY SUBMERGED ARC WELDING (SAW) OR SHIELDED METAL ARC WELDING (SMAW) SHALL BE USED FOR WELDING BALLAST AND CLOSURE PLATES TO THE FLANGES.

ALL SHOP DRAWINGS SHALL BE CHECKED BY THE FABRICATOR BEFORE SUBMITTING THEM FOR APPROVAL. "BE DAMIN'S SHALL BE ELECTROMICALLY SUBMITTED TO THE ENVINEER FOR APPROVAL PRIOR TO FABRICATION. THESE DRAWINGS SHALL BECOME THE PROPERTY OF AND SHALL BE DELIVERED TO BRISF BALLMAY HOW COMPLETION OF THE CONTRACT. MELDING TO THE STRUCTURAL STEEL MEMBERS FOR THE PURPOSE OF ATTACHING CONSTRUCTION ACCESSORIES OR ERECTION HARDWARE, EITHER FIELD OR SHOP, WILL NOT BE PERMITTED.

DURING THE PREPARATION OF SHOP DRAWINGS, THE FABRICATOR SHALL CHECK ALL GENERAL DIMENSIONS OF THE STEEL WINKA MAN SHALL EPROPENTALLS TO THE ENGINEER FOR REPORTING MAD CHALLER ENGINEER FOR REPORTING MAD CHANGE WILL BE MAD TO THE FABRICATION FOR WATERIAL FABRICATED TO INCORRECT DIMENSIONS NOT SO REPORTED.

SEE PLAN NO. 7100-0136.50-12 THROUGH 7100-0136.50-018 FOR ADDITIONAL STRUCTURAL STEEL NOTES.

BRIDGE WONTORING PLAN:
THE CONTROLOGN WILL BEREPOSS BLE FOR DEVELOPMENT AND IMPLEMENTATION OF A BRIDGE
THE CONTROL PROGRAM FOR APPROVAL BY BOSS". THE PLAN SHALL LIST THE MONITORING ALONG
WITH AND WHEN THE MEASUREMENTS FOR THE WONTORING SHALL BE TAKEN.

GEALR OF DAMAGE GALVAILZED SHEAKES.

DAMAGED CALVAILZED SHEAKES SHALL BE THOROUGHY CLEANED TO READOR ALL CONTAMINANTS

NOLLOING MED SAG, RED SAFITER, AND ROST, AND SHALL HEN BE PAINTED WITH THO

CANS OF Z. ZHO COST - ZINC DOST, ET ZINC DOSTORE.

PRESENCE ALL ON THE PERSON.

DECK WATERPROOF ING: THE STEEL DECK WARLI DE WATERPROOFED WITH A COLD APPLIED SPRAY ON WATERPROOF ING IN ACCORDINGE WITH 2018 AREAL CHAPTER 8 PART 29.

CONTRACTOR SHALL SUBMIT DETAILED APPLICATION PROCEDURES, WAITRIAL SPECIFICATIONS AND SHOP PORMAINES FOR HEATBROADD HAS SYSTEM INCLUDING FEELD INTELED JOINT STSTEMS. OTHER SYSTEMS AND SYSTEM INCLUDING THE STREAM TO THE SYSTEMS AND SYSTEMS AND SYSTEMS. TO THE APPROVAL PRIOR TO INSTALLATION, WHITE THE SYSTEMS AND THE SYSTEMS AND SYSTEMS AND SYSTEMS. TO THE APPROVAL PRIOR TO INSTALLATION, WHITE SYSTEMS AND SYSTEMS AND SYSTEMS AND SYSTEMS. THE WATERPROOFING SHALL BE PROTECTED BY THE BALLAST MAT INSTALLED PER TRACK STANDARD 1002.

CONTROLLED LOW-STRENGTH FILL MATERIAL (FLUMBLE FILL):
MATERIAL PROPERTURNING LESSCUTTO:: 100
COURSE, AGREGATE, LEASTON BOOL.
CLASS E CONFORMING DEST BF OR 671
THE AGREGATE (LASSTON BOOL.)
THE MATERIAL WAS TO WELL AND TO WE WAS TO WE WANT TO

1,845 325 OR AS NEEDED

CLASS A EPOXY:
1. AS15-18 A&B LIOUID TYPE EPOXY
2. SPEC-BOND 100 EPOXY

CLASS B EPOXY:

1. AS23-18 A&B GEL TYPE EPOXY 2. SPEC-BOND 200 EPOXY

LIVE LOAD: COOPER E-80 OR ALTERNATE LIVE LOAD WITH DIESEL IMPACT

AND

DEAD LOAD: INCLUDES MINIMUM 12" BALLAST UNDER TIE A MAXIMUM 30" TOTAL BALLAST DEPTH

AS15-18 AND AS23-18 EPDITES ARE ANAILABLE FROM:
DELL'A PLATICS C. OR PERMALITIE
DISTS BROAD 256
TERRA BELLA, CA 92270
PROME (559) 535-1337
FAX (559) 535-1337
FAX (559) 535-3373
FAX (714) 548-1130

.EGEND:

CONCRETE
CAST-IN-PLACE
CROSSHOLE SONIC LOGGING

-ETER K PLATE GIRDER

REFERENCES:

EPOXY: THE FOLLOWING MATERIALS ARE APPROVED FOR USE:

DESIGN IN ACCORDANCE WITH THE AMERICAN RAILWAY ENGINEERING AND MAINTENANCE-OF-WAY ASSOCIATION MANUAL FOR RAILWAY ENGINEERING, 2017. CHAPTER 8, CONCRETE STRUCTURES AND FOUNDATIONS CHAPTER 15, STEEL STRUCTURES

DESIGN DATA:

SPEC-BOND EPOXIES ARE AVAILABLE FROM:
OSDEFC MARKITHOR & AMANFACTURING CO. INC.
536 SOUTH 66TH TERRACE
FAMSAS CITY, 62 66111
PHOME (913) 287-1700
FAX (913) 287-2716

BNSF STANDARDS: BNSF STANDARD BRIDGE & COMPONENT PLANS. JUNE 1, 2016.

CONTROL OF STATE OF S

INC. GEOTECHNICAL REPORT: SEE REPORT BY TERRACON CONSULTANTS. DATED APRIL 3. 2019.

SURVEY:

BRIDGE STATIONING AND ELEVATIONS BASED ON SURVWEST DATED AUGUST. 2018.

MEAN SIDE OUTSIDE DIAMETER PRECAST PRESTRESSED PRODISE RADIUS REQUIRED RECOURSED PROCESORET

ISCELLANEOUS EAR SIDE

	136.50B
TYPICAL INLESS NOTED OTHERWISE WATER SURFACE ELEVATION	136
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SEN	1
= TYPICAL = UNLESS N = WATER SI	SHEETS
TYP. U.N.O. W.S.E.	90
TYP. U.N.O. W.S.E.	LIST OF SHEETS

LIST	LIST OF SHEETS - BR. 136.50B
PLAN NO.	TITLE
7100-136,500-001	GENERAL NOTES - NEW BRIDGE
7100-136.500-002	GENERAL PLAN AND ELEVATION (1 OF 2) - NEW BRIDGE
7100-136.500-003	GENERAL PLAN AND ELEVATION (2 OF 2) - NEW BRIDGE
7100-136.500-004	PILING PLAN
7100-136.500-005	TYPICAL SECTIONS (1 OF 3)
7100-136.500-006	TYPICAL SECTIONS (2 OF 3)
7100-136.500-007	TYPICAL SECTIONS (3 OF 3)
7100-136.500-008	BEARING DETAILS (1 OF 2)
7100-136.500-009	BEARING DETAILS (2 OF 2)
7100-136.500-010	PRECAST BENT CAP DETAILS SPC136.50-1
7100-136.500-011	PRECAST BENT CAP DETAILS SPC136.50-2
7100-136.500-012	W36x361 STEEL BEAM SPAN FRAMING PLAN
7100-136,500-013	FRAMING DETAILS
7100-136.500-014	BALLAST PLATE LAYOUT AND DETAILS
7100-136.500-015	STEEL DETAILS (1 OF 3)
7100-136.500-016	STEEL DETAILS (2 OF 3)
7100-136.500-017	STEEL DETAILS (3 OF 3)
7100-136.500-018	MISC. DETAILS AND BILL OF MATERIAL (1 OF 2)
7100-136.500-019	MISC. DETAILS AND BILL OF MATERIAL (2 OF 2)

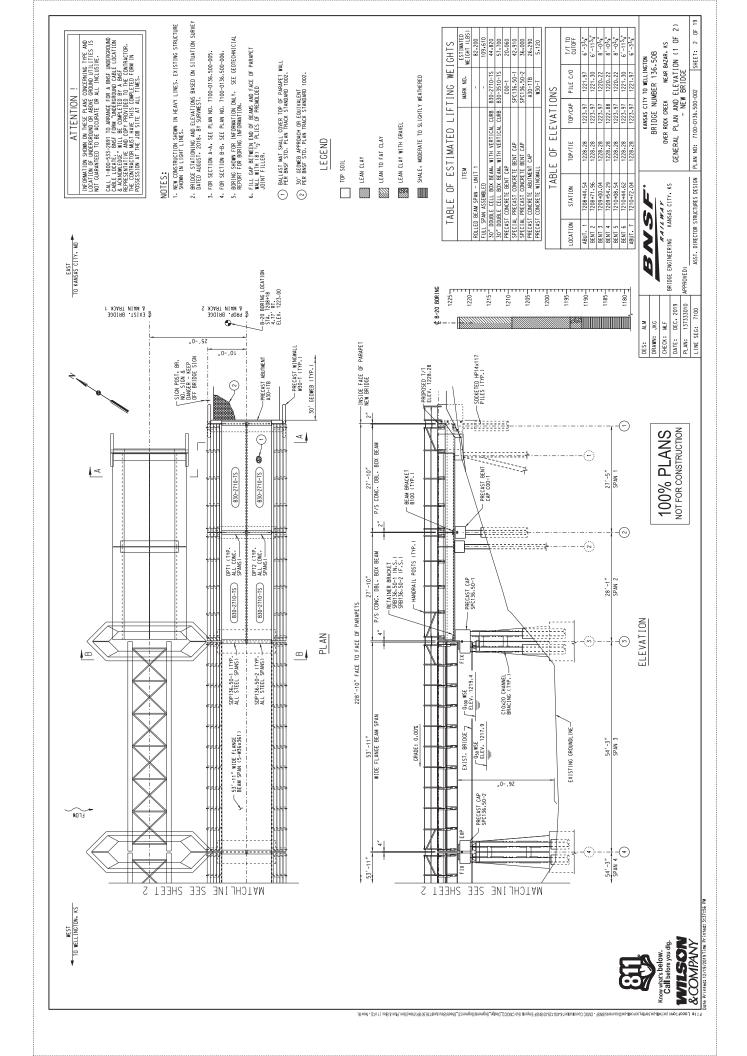
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		A A I L W A IV		APPROVED:	ASST. DIRECTOR STRUCTURES DESIGN
ALM	JKG	MLF	DATE: DEC. 2019	PLAN: 137333010	LINE SEG: 7100
DES: ALM	DRAWN: JKG	CHECK: MLF	DATE:	PLAN:	LINE SE

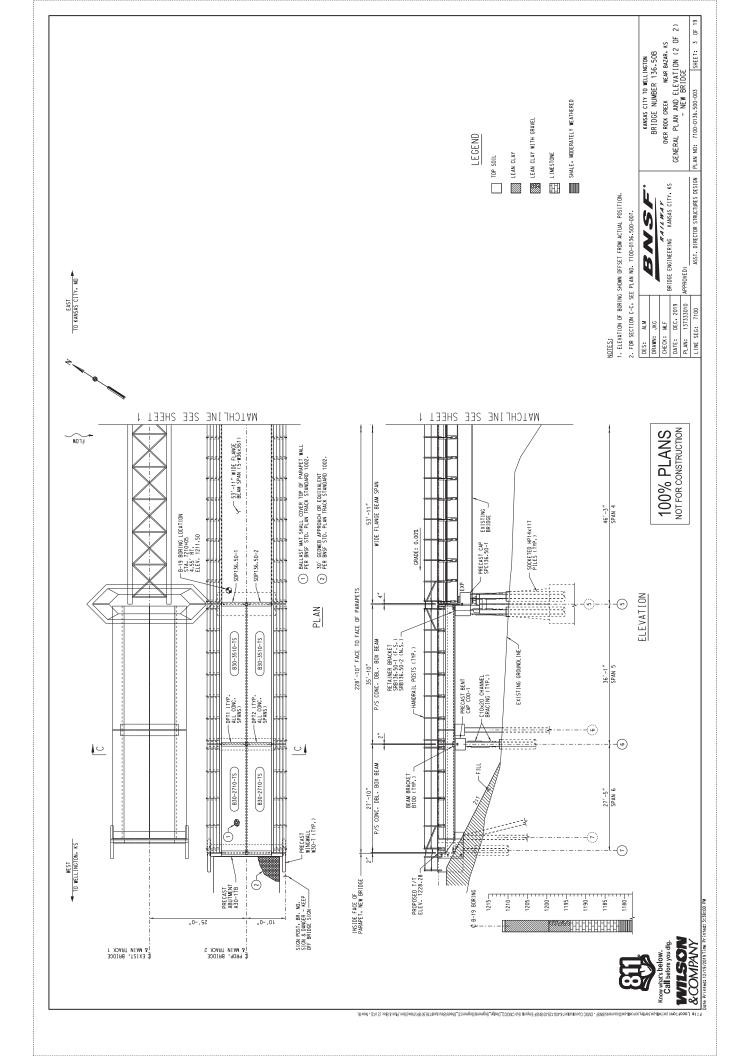
NOT FOR CONSTRUCTION **100% PLANS**

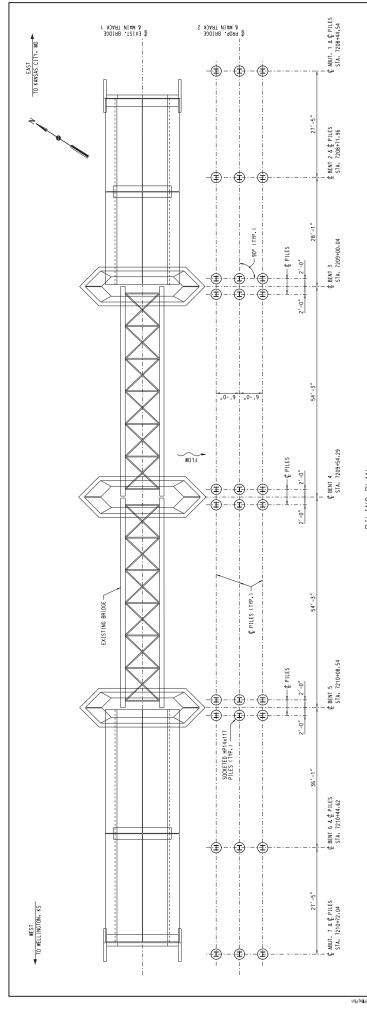
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ATTENTION : - UTILITY NOTE

NEAR BAZAR, KS KANSAS CITY TO WELLINGTON BRIDGE NUMBER 136.508 OVER ROCK CREEK







PILING PLAN

PILE NOTES:

- 1. WORK TO BE PERFORMED BETWEEN TRAINS.
- 2. ON CENTERLINES OF PROPOSED PILES. DRILL 33" DIA. (MAXIMUM) HOLE THROUGH SOIL TO BEDROCK LAYER.
 - 2. PARE 27. STELL CANDEN DE IN DIRECTOR, AND CASSING PIPE R. WITH GENORY OF AS RETESSAY TO ACHIEFE ADMINISTRAL, OP OF GASHIN PIPE TO BE PRIPOR MARTEY 2.0-4 MODIF GOLOMOLI DISCHAIL OF A STELL OF THE PROPERTY OF CASING PIPE WITH STEEL PLATE SECURED IN PROSITION.
- 4. ON CENTERLINE OF PROPOSED PILES, DRILL 30" DIA. HOLE A MINIMIM OF 10' INTO FIELD-ENCOUNTRED BEDROCK ON TO THE APPROXIMATE ELEVATION SHOWN. WHICHERR PRODUCES THE LOWER LEGATION. CLEAN HOLE OF ALL SOIL AND ROCK FRACHENTS. IF NECESSARY, PUMP WATER FROM HOLES UNTIL CONCRETE IS PLACED.
- CLEAN STEEL BEARING PLES AS NECESSARY 10 REMOVE DIRT ANN LODGE RUSS. CENTER STEEL BEARING PILE IN RRILLED HOLE, FUNDER PILE AT LE BENS. SECHRETOR OF PILE AGAINST MOYEMENT. HE PILE SHILL CONTINUE BEING HELD UNTIL COMMERT HAS BEEN PLACED AND CHRED.
 - 6. PLACE CLASS 35 CONCRETE. WITH A WODIFIED SLUMP OF 6" TO 8". IN THE ORLILED HOLE USING A TREMIE PLACED BETWEEN THE PILE FLANGES. FREE FALL OF CONCRETE SHALL NOT BE PERMITTED.
- 7. AFTER EXCAVATION IS MADE TO PERMIT PLACING PRECASI CONCRETE CAPS. CUT OFF STEEL CASING PIPE 1'-0" ABOVE GROUNDLINE ELEVATION AT BENTS AND 2'-0" BELOW CUTOFF AT ABUTMENTS.

, PLANS	CONSTRUCTION
100%	NOT FOR

					PLAN NO
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ALM	JKG	MLF	DATE: DEC. 2019	PLAN: 137333010	LINE SEG: 7100
DES:	DRAWN: JKG	CHECK: MLF	DATE:	PL AN:	LINE SE

Bf Over					PLAN NO: 710
ENSE.		PANTAL PRODUCE CHANGE CITY AS	UNIDOE ENGINEERING NAMES CITIES NO	APPROVED:	ASST. DIRECTOR STRUCTURES DESIGN PLAN NO: 710
S: ALM	AWN: JKG	CK: MLF	TE: DEC. 2019	AN: 137333010 APPROVED:	NE SEG: 7100
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INFORMATION SHOWN ON THESE PLANS CONCERNING TYPE AND LOCATION OF UNDERGROUND OR ABOVE GROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE.

ATTENTION

